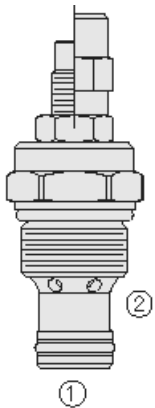




## Overview



### Description

A screw-in, adjustable, pressure compensated, restrictive type with reverse flow check flow regulator cartridge valve.

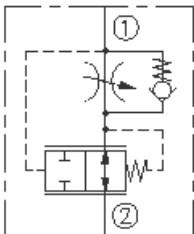
### Operation

The valve opening increases from fully closed to fully open with counterclockwise adjustment rotation. With inlet at port 1 the FR50-23X valve will maintain preset flow rate from port 2 regardless of pressure variations in the circuit. The valve is intended for use with mineral based or synthetic fluids with lubricating properties.

### Features

- Hardened parts for long life.
- Quiet, modulated response.
- Industry-common cavity.

## Symbol



## Ratings

### Pressure Ratings

Pressure rating	350 bar (5075 psi)
Proof pressure	690 bar (10000 psi)
Burst pressure	1379 bar (20000 psi)

### Flow Ratings

Flow rating	0.4 to 11.5 lpm (0.1 to 3.0 gpm)
Maximum internal leakage	30 ml/min (1.8 in <sup>3</sup> /min) - <b>Note:</b> At 5000 psi

### Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 212 °F)	- <b>Note:</b> With buna N seals
	-26 to 204 °C (-15 to 400 °F)	- <b>Note:</b> With fluorocarbon seals
	-54 to 107 °C (-65 to 225 °F)	- <b>Note:</b> With polyurethane seals
	-54 to 107 °C (-65 to 225 °F)	- <b>Note:</b> With urethane seals
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 70 °C (-40 to 160 °F)	

### Other Ratings

Corrosion protection	960 hr salt spray per ASTM b117 (model number gfr50-23)
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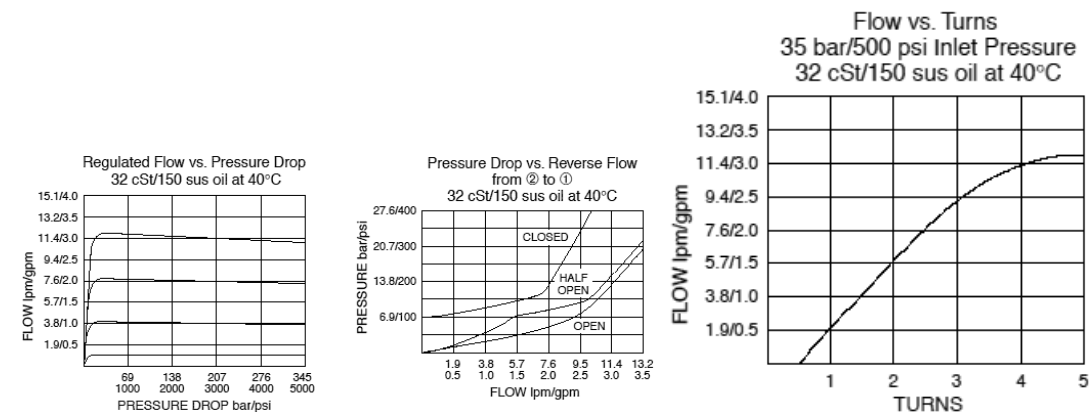
## Operating Parameters

Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per ISO 4406

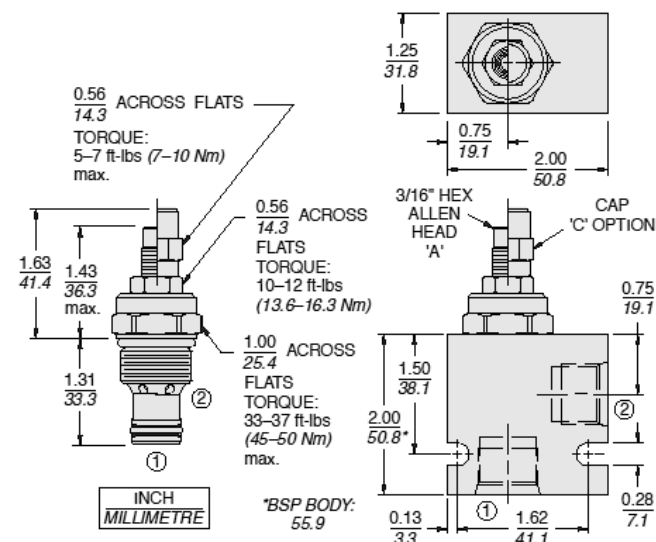
## Properties

Unit weight	0.13 kg (0.28 lb)	- <b>Note:</b> FR50-23A
	0.15 kg (0.32 lb)	- <b>Note:</b> FR50-23C
Internal wetted surface area	100 cm <sup>2</sup> (15.55 in <sup>2</sup> )	

## Performance



## Dimensions



## Installation Specifications

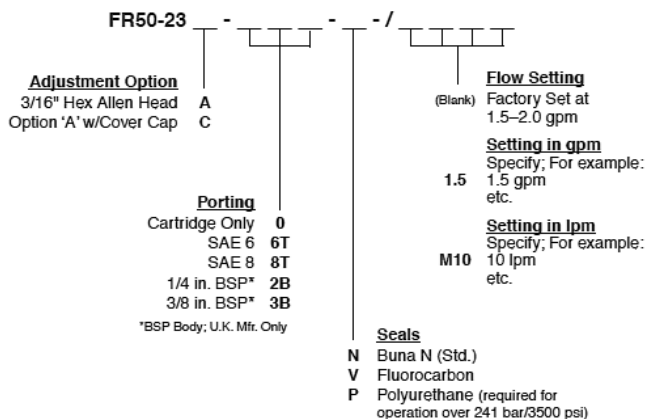
Cavity	VC10-2
Cartridge installation torque	45 to 50 N-m (33 to 37 ft-lb)
Cover cap torque	7 to 10 N-m (5 to 7 ft-lb)
Orientation restriction	None

## Accessories

Seal kit SK10-2X-M - **Note:** X = seal option



## Order Code



## Model Options

## FR50-23F-H-J-/T

## F Adjustment Option

CODE	DESCRIPTION
A	3/16" Hex Allen Head
C	3/16" Hex Allen Head with Cover Cap

## H Line Body

CODE	DESCRIPTION
0	No Body
6T	Aluminum SAE 6
8T	Aluminum SAE 8
6TD	Ductile Iron SAE 6
8TD	Ductile Iron SAE 8
2B	Aluminum BSPP 1/4" (2)
3B	Aluminum BSPP 3/8" (3)
4B	Aluminum BSPP 1/2" (4)
4BD	Ductile Iron BSPP 1/2" (4)

## J Seal

CODE	DESCRIPTION
N	Buna-N
V	Fluorocarbon
P	Polyurethane
U	PPDI Urethane

## T Flow setting

CODE	DESCRIPTION
XX	Flow setting